



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,765	01/30/2004	Hartwig Schlesiger	CH-7992/WW-5620	7046

157 7590 01/30/2006

BAYER MATERIAL SCIENCE LLC
100 BAYER ROAD
PITTSBURGH, PA 15205

EXAMINER

NUTTER, NATHAN M

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/768,765

Applicant(s)

SCHLESIGER ET AL.

Examiner

Nathan M. Nutter

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This application has been re-assigned to Examiner Nathan M. Nutter in Art Unit 1711. All inquiries regarding this application should be directed to Examiner Nutter at telephone number 571-272-1076.

Response to Appeal Brief

The Appeal Brief filed 3 November 2005 is hereby dismissed and prosecution is being re-opened on claims 1-5.

The rejection of claims 1-5 under 35 USC 103(a) as being unpatentable over Schinski (Us 4,654,085) is hereby expressly withdrawn.

New grounds of rejection will follow.

Claim Interpretations

The claims require the inclusion of "a cellulose ether" and "from 0.1 to 10% by weight of an additive selected from the group consisting of starch, starch ether, guar, guar ether and xanthan." The claims are not deemed to require components "optionally from 0.05 to 1% by weight of polyacrylamide" and "optionally further additives" as recited in claim 1. As such, the polyacrylamide addition recited in claim 1 and the recitations of claim 4 are, likewise, not required. Any reference found that teaches the cellulose ether in combination with one of the specified constituents may be used to reject claim 4 since the presence of polyacrylamide is not required. Further, the claims recite the employment of "additive b) as an aqueous solution or as a powder," a moisture content for the cellulose ether "in the range of 25% to 75% by weight, based on the weight of moist cellulose ether," subsequently "optionally further adding water" in

Art Unit: 1711

an unspecified amount, then "milling and drying" the blend. Since the claims are nebulous as to the specific addition of water, the moisture content of the "moist cellulose ether" cannot be deemed to be critical, but more a matter of choice or availability of constituents.

The instant claims are directed to a product-by-process. Determination of patentability in such claims is based on product itself even though these claims are limited and defined by process. Thus, the product of these claims is unpatentable if it is the same as or obvious from the product of prior art, even if product of the prior art was made by a different process. The process, it is pointed out, is drawn to conventional mixing, grinding and drying steps, known in the art, to produce the cellulose ether composition.

The components of the composition, per se, are well-known and conventional for use together. Note the references to Andres et al (US 4,464,202), t'Sas (US 4,939,192) and Li et al (US 2003/0105192), all newly cited prior art references that show the conventionality of the constituents included together. In Andres et al (US 4,464,202), note the paragraph bridging column 3 to column 4, column 4 (lines 38-45), column 5 (lines 1-15) and column 6 (lines 19-35). In the patent to t'Sas (US 4,939,192), note column 1 (lines 55-64), the paragraph bridging column 1 to column 2 and column 4 (lines 17-24). In the reference to Li et al (US 2003/0105192), note paragraphs [0012], [0050], Table 5 at page 6 and paragraph [0065]. The references, each, show the contemplated constituents as conventional for this art.

Specification

The disclosure is objected to because of the following informalities:

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: "metering-in additive d)." nothing in the claim recites the addition of optional component d). The claim recites "mixing (a)-(d)."

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation in claim 1 at the antepenultimate and penultimate lines of "has a bulk density of more than 40 g/l greater than the bulk density of a comparative cellulose ether blend," is meaningless without qualifying or quantifying what would be deemed to be such "comparative cellulose ether blend" and what would be an acceptable bulk density for the so-called comparative blend.

Art Unit: 1711

Further, continuity of claim language is required, otherwise the claims are deemed to be vague and confusing. Applicants initially refer to components a), b), c) and d) in the claim, which changes to "(a)-(d)."

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of copending Application No. 09/785,905 (Schlesiger et al US 2001/0025101), newly cited. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process of the claims of the copending application is used to manufacture the identical product as herein claimed. The claims of the copending application recite

Art Unit: 1711

steps and product properties that are not disclosed or suggested herein, but would embrace the composition as recited in the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Schlesiger et al (US 2001/0025101).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Note the Abstract and paragraphs [0017]-[0021] for the broad concept. Note paragraph [0023] for the production of a high bulk density product, paragraphs [0025]-[0027] for the cellulose ethers, paragraphs [0038]-[0040] for the process steps that comprise the mill drying concept recited and claimed herein. At paragraph [0054] the reference teaches the addition of starch ethers, including hydroxyalkyl starches, as recited in instant claim 5.

Claim Rejections - 35 USC § 102/103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kiesewetter et al (US 6,943,247), newly cited.

The reference to Kiesewetter et al (US 6,943,247) teaches the production of a cellulose ether blend composition comprising cellulose ethers, including methylhydroxyethyl cellulose, ethylhydroxyethyl cellulose (alkylhydroxyalkyl cellulose) and methyl cellulose of claim 2. Note column 4 (line 41) to column 5 (line18). At column 5 (lines 30-39) the reference teaches that "blends of cellulose ethers with starch ethers and/or guar ethers may be used, including hydroxypropylstarch (hydroxyl alkyl starch) as recited in claim 5. The Table at column 6, with 0.001-5 wt % cellulose ether to 0-0.5

Art Unit: 1711

wt % starch ether, which would be within the range recited for these components at lines 2-5 of claim 1. The polyacrylamide and "further additives" are not required for the reference to anticipate the claims and claim 4 is, thus, deemed to be anticipated as well. However, the reference teaches the addition of polyacrylamide and other additives at the paragraph bridging column 5 to column 6. The reference teaches the method steps of taking a cellulose ether, to which may be added the other constituents, with subsequent milling and drying. The broad claim 1, requires only the mixing of a) and b), milling and drying. This is taught in the Abstract, column 2 (lines 27-36) and the Examples section of the patent which commences at column 6 (lines 55 et seq.). While the recitation of the moisture content of the cellulose ether "in the range of 25% to 75% appears to be dependent upon the addition of "an aqueous solution" of polyacrylamide, the reference shows such a range at column 7 (lines 9-30).

The recitations of the claims are met by the teachings of the patent to Kieseewetter et al (US 6,943,247) as regards the constituents, their inclusion and the process of producing the composition. The reference is silent with respect to the specific bulk density. As pointed out above, this characteristic which appears to be an inherent feature and, thus, anticipated, may be deemed to be a desired feature and would , thusly, be considered to be a feature manipulable within the teachings of the reference since all other parameters are shown by the patent. This feature is not clearly defined with reference to any specific range or inclusion. As such, the instant claims are deemed to be at least obvious, if not anticipated, by the teachings of the patent to Kieseewetter et al (US 6,943,247).

Art Unit: 1711

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Böhme-Kovac et al (US 5,387,626), newly cited.

The reference to Böhme-Kovac et al (US 5,387,626) teaches the manufacture of a cellulose ether composition that is identical in scope to that recited and claimed herein. Note the Abstract and column 3 (lines 37-53) wherein the cellulose ether is combined with "from 0 to 20% by weight of a starch ether," "from 1 to about 15% by weight polyacrylamide and other additives, if desired. The compositional limitation for the starch ether completely embraces that recited and claim at "from 0.1 to 10% by weight." The polyacrylamide, also, is totally embraced at "from 0.05 to 1% by weight." The reference teaches the use of methylcellulose and methylhydroxyethyl cellulose, as recited in instant claim 2, at the paragraph bridging column 3 to column 4 and Table 1. the polyacrylamide of claim 4 is taught at the paragraph bridging column 4 to column 5. The specific starch ethers, including the carboxymethylhydroxypropyl starch as recited in instant claim 5, is shown at column 7 (lines 6-56). The reference teaches the addition of granular components at column 8 (lines 20 et seq.) and the mixing thereof at column 9 (lines 3-9). Further, note the Examples and Table VIII and Table IX.

The instant claims are directed to a product-by-process. Determination of patentability in such claims is based on product itself even though these claims are limited and defined by process. Thus, the product of these claims is unpatentable if it is the same as or obvious from the product of prior art, even if product of the prior art was made by a different process. The process, it is pointed out, is drawn to

Art Unit: 1711

conventional mixing, grinding and drying steps, known in the art, to produce the cellulose ether composition.

Claim Rejections - 35 USC § 103

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Böhme-Kovac et al (US 5,387,626) taken in view of Girg et al (US 2004/0106729), Girg et al (US 5,432,215) or Weber et al (US 2005/0282939), all newly cited.

The reference to Böhme-Kovac et al (US 5,387,626) teaches the manufacture of a cellulose ether composition that is identical in scope to that recited and claimed herein. Note the Abstract and column 3 (lines 37-53) wherein the cellulose ether is combined with "from 0 to 20% by weight of a starch ether," "from 1 to about 15% by weight polyacrylamide and other additives, if desired. The compositional limitation for the starch ether completely embraces that recited and claim at "from 0.1 to 10% by weight." The polyacrylamide, also, is totally embraced at "from 0.05 to 1% by weight." The reference teaches the use of methylcellulose and methylhydroxyethyl cellulose, as recited in instant claim 2, at the paragraph bridging column 3 to column 4 and Table 1. the polyacrylamide of claim 4 is taught at the paragraph bridging column 4 to column 5. The specific starch ethers, including the carboxymethylhydroxypropyl starch as recited in instant claim 5, is shown at column 7 (lines 6-56). The reference teaches the addition of granular components at column 8 (lines 20 et seq.) and the mixing thereof at column 9 (lines 3-9). Further, note the Examples and Table VIII and Table IX.

The instant claims are directed to a product-by-process. Determination of

Art Unit: 1711

patentability in such claims is based on product itself even though these claims are limited and defined by process. Thus, the product of these claims is unpatentable if it is the same as or obvious from the product of prior art, even if product of the prior art was made by a different process. The process, it is pointed out, is drawn to conventional mixing, grinding and drying steps, known in the art, to produce the cellulose ether composition.

The references to Girg et al (US 2004/0106729), Girg et al (US 5,432,215) and Weber et al (US 2005/0282939) all show the conventionality of the instant process, as it may be used to manufacture cellulose ether compositions, as herein claimed. In Girg et al (US 2004/0106729) note the Abstract, paragraphs [0010] for the cellulose ether, paragraph [0013] for the addition of polyacrylamide, than at paragraph [0014] may be in the form of a solution or suspension. Finally, note paragraph [0017] and the many Examples which teach the milling and drying process. The patent to Girg et al (US 5,432,215) shows the instant method using cellulose ether compositions at column 5 (lines 30-38) and the Examples. The reference to Weber et al (US 2005/0282939) teaches the method steps at paragraphs [0030]-[0033] and [0039]-[0043] for the manufacture of cellulose ether compositions, as recited and claimed. Further, note paragraphs [0023], [0025] and [0027] for concepts recited in the instant claims.

The reference to Böhme-Kovac et al (US 5,387,626) teaches the manufacture of a cellulose ether composition that is identical in scope to that recited and claimed herein. The secondary references to Girg et al (US 2004/0106729), Girg et al (US 5,432,215) and Weber et al (US 2005/0282939) show the conventionality of the method

Art Unit: 1711

steps, as herein recited and claimed, for the manufacture of cellulose ether compositions. The reference to Böhme-Kovac et al (US 5,387,626) teaches the addition and mixing and the secondary references show the identical steps, as recited, applied to cellulose ether compositions. As such, the manufacture of the cellulose ether compositions of Böhme-Kovac et al (US 5,387,626) using the method steps of either secondary reference would have been a prima facie obvious modification to an artisan of ordinary skill in the art.

Response to Arguments

Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new grounds of rejection.

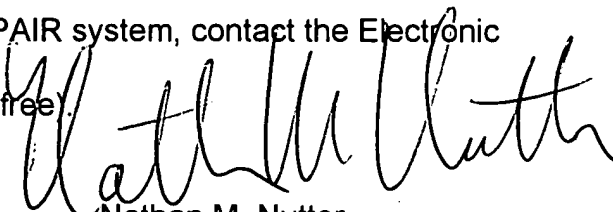
Due to the new grounds of rejection, this action is not being made FINAL.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1711

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Nathan M. Nutter", is written over the text of the Electronic Business Center (EBC) contact information.

Nathan M. Nutter
Primary Examiner
Art Unit 1711

nmn

19 January 2006